

SP



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/944,996	08/31/2001	Brian K. Martin	RSW920010151US1	1846

7590

03/24/2005

A. Bruce Clay
IBM Corporation T81/503
PO Box 12195
Research Triangle Park, NC 27709

EXAMINER

HA, LEYNNA A

ART UNIT	PAPER NUMBER
----------	--------------

2135

DATE MAILED: 03/24/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/944,996

Applicant(s)

MARTIN, BRIAN K.

Examiner

LEYNNA T. HA

Art Unit

2135

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-13 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 8/31/2001.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

1. Claims 1-13 have been examined and is rejected under 35

U.S.C. 102(e).

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. **Claims 1-9 and 11-13 are rejected under 35 U.S.C. 102(e) as being anticipated by Reid, et al. (US 6,182,226).**

As per claim 1: (col., lines)

Reid discloses a stealth firewall comprising:

a first network interface to an external network; **(col.2, lines 66-67)**

a second network interface to an internal network; **(col.3, lines 55-58)**

a packet filter for restricting access to said internal network **(col.3, lines 61-63)**, said packet filter not responding to said external network

Art Unit: 2135

upon receiving requests from said external network to access said internal network; and, **(col.12, lines 56-59 and col.15, lines 61-63)**

a state machine pre-configured to transition across a plurality of internal states, from a restricting state to an access state, conditioned upon receiving a plurality of requests to access said internal network, said plurality of requests collectively comprising a code for causing said state machine to transition from said restricting state to said access state which causes said packet filter to permit access to said internal network.

(col.5, line 58-col.6, line 40)

As per claim 2: See col.1, lines 35-48 and col.4, line 20; discussing requests from said external network comprise transport control protocol (TCP) SYN messages.

As per claim 3: See col.1, lines 35-48 and col.4, line 20; discussing each state in said state machine corresponds to data in a specified field of said TCP SYN messages.

As per claim 4: See col.6, lines 12-13 and col.7, lines 40-43; discussing specified field comprises a destination port field.

As per claim 5: See col.5, lines 54-55; discussing code is a rolling code which can vary according to time.

As per claim 6: See col.6, lines 9-13; discussing packet filter can permit access to a specific port in said internal network based upon a destination port specified in a TCP SYN message received after transitioning to said access state in said state machine.

Art Unit: 2135

As per claim 7:

Reid discloses a method for permitting access to a network protected behind a stealth firewall comprising the steps of:

initializing a state machine configured to grant access to the stealth firewall contingent upon said state machine transitioning across a plurality of internal states responsive to receiving a plurality of requests to access the network from a single network device, said plurality of requests collectively comprising a code for causing said state machine to permit access to the network; **(col.5, lines 35-53)**

receiving an access request from a network device in a network which is external to the network protected behind the stealth firewall, identifying an access parameter in said access request **(col.7, lines 31-51)** and transitioning from an initial state in said state machine to an intermediate state if said identified access request satisfies transitioning criteria associated with said state machine for transitioning from said initial state to said intermediate state; **(col.5, line 58-col.6, line 40)**

receiving a further access request from said network device in said network which is external to the network protected behind the stealth firewall, identifying a further access parameter in said further access request and transitioning from an intermediate state in said state machine to a final state if said identified further access request satisfies transitioning criteria associated with said state machine for transitioning from an intermediate state to said final state; **(col.13, lines 31-67)**

not providing a response to said network device upon receiving each said access request from said network device in said network which is external to the network protected behind the stealth firewall unless said network device provides a sequence of access requests to the stealth firewall causing said state machine to transition to said final state; and,

(col.12, lines 56-59 and col.15, lines 61-63)

upon transitioning to said final state, permitting said network device to access the network protected behind the stealth firewall.

(col.16, lines 59-66)

As per claim 8:

Reid discloses a method for permitting access to a network protected behind a stealth firewall comprising the steps of:

receiving a plurality of access requests from a plurality of network devices which are external to the network protected behind the stealth firewall; **(col.3, lines 34-35)**

not providing a response to said plurality of network device upon receiving each of said access requests; **(col.12, lines 56-59 and col.15, lines 61-63)**

identifying access request parameters in said received access requests; **(col.5, lines 58-63)**

performing state transitions in a state machine in the stealth firewall based upon identifying particular ones of said identified access request parameters; and, **(col.7, lines 34-51)**

Art Unit: 2135

upon identifying a pre-determined sequence of access request parameters, said identification of said sequence of access request parameters causing a corresponding sequence of state transitions in the said machine, permitting access to a selected network device responsible for transmitting said sequence of access requests parameters. **(col.16, lines 20-65)**

As per claim 9:

Reid discloses a method for permitting access to a network protected behind a stealth firewall comprising the steps of:

configuring a state machine to grant access to the stealth firewall contingent upon said state machine transitioning through a plurality of states based upon a sequence of access request parameters identified in received access requests from a single network device; **(col.16, lines 20-65)**

setting said sequence of access parameters to a specific set of access parameters; and, **(col.7, lines 34-51)**

disposing said state machine in the stealth firewall. **(col.5, lines 34-38)**

As per claim 11:

Reid discloses a machine readable storage having stored thereon a computer program for permitting access to a network protected behind a stealth firewall, said computer program comprising a routine set of instructions for performing the steps of:

initializing a state machine configured to grant access to the stealth firewall contingent upon said state machine transitioning across a plurality of internal states responsive to receiving a plurality of requests to access the network from a single network device, said plurality of requests collectively comprising a code for causing said state machine to permit access to the network; **(col.5, lines 35-53)**

receiving an access request from a network device in a network which is external to the network protected behind the stealth firewall, identifying an access parameter in said access request **(col.7, lines 31-51)** and transitioning from an initial state in said state machine to an intermediate state if said identified access request satisfies transitioning criteria associated with said state machine for transitioning from said initial state to said intermediate state; **(col.5, line 58-col.6, line 40)**

receiving a further access request from said network device in said network which is external to the network protected behind the stealth firewall, identifying a further access parameter in said further access request and transitioning from an intermediate state in said state machine to a final state if said identified further access request satisfies transitioning criteria associated with said state machine for transitioning from an intermediate state to said final state; **(col.13, lines 31-67)**

not providing a response to said network device upon receiving each said access request from said network device in said network which is external to the network protected behind the stealth firewall unless

Art Unit: 2135

said network device provides a sequence of access requests to the stealth firewall causing said state machine to transition to said final state; and,

(col.12, lines 56-59 and col.15, lines 61-63)

upon transitioning to said final state, permitting said network device to access the network protected behind the stealth firewall.

(col.16, lines 59-66)

As per claim 12:

Reid discloses a machine readable storage having stored thereon a computer program for permitting access to a network protected behind a stealth firewall, said computer program comprising a routine set of instructions for performing the steps of:

receiving a plurality of access requests from a plurality of network devices which are external to the network protected behind the stealth firewall; **(col.3, lines 34-35)**

not providing a response to said plurality of network device upon receiving each of said access requests; **(col.12, lines 56-59 and col.15, lines 61-63)**

identifying access request parameters in said received access requests; **(col.5, lines 58-63)**

performing state transitions in a state machine in the stealth firewall based upon identifying particular ones of said identified access request parameters; and, **(col.7, lines 34-51)**

upon identifying a pre-determined sequence of access request parameters, said identification of said sequence of access request parameters causing a corresponding sequence of state transitions in the said machine, permitting access to a selected network device responsible for transmitting said sequence of access requests parameters. **(col.16, lines 20-65)**

As per claim 13:

Reid discloses a machine readable storage having stored thereon a computer program for permitting access to a network protected behind a stealth firewall, said computer program comprising a routine set of instructions for performing the steps of:

configuring a state machine to grant access to the stealth firewall contingent upon said state machine transitioning through a plurality of states based upon a sequence of access request parameters identified in received access requests from a single network device; **(col.16, lines 20-65)**

setting said sequence of access parameters to a specific set of access parameters; and, **(col.7, lines 34-51)**

disposing said state machine in the stealth firewall. **(col.5, lines 34-38)**

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claim 10 is rejected under 35 U.S.C. 102(e) as being anticipated by Rothermal, et al. (US 6,678,827).

As per claim 10:

Reid discloses a stealth firewall comprising:

a first network interface to an external network; a second network interface to an internal network; **(col.1, lines 23-35)**

a packet filter for restricting access to said internal network **(col.4, lines 51-54)**, said packet filter ignoring requests from said external network to access said internal network; **(col.5, lines 14-17)**

fixed storage in which at least one authentication password can be stored; **(col.6, lines 60-62)**

a hash processor configured to apply a hashing algorithm to said stored at least one authentication password; and, **(col.5, lines 63-64)**

a comparator configured to compare a hashed password and timestamp received from said first network interface **(col.6, lines 36-49)**,

Art Unit: 2135

with a hashed result produced by said hash processor for a stored password associated with a user at said first network interface, said comparator causing said packet filter to permit access to said internal network where said hashed password and timestamp matches said hashed result. **(col.12, lines 5-6 and col.13, lines 47-67)**

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to LEYNNA T. HA whose telephone number is (571) 272-3851. The examiner can normally be reached on Monday - Thursday (7:00 - 5:00PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kim Vu can be reached on (571) 272-3859. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Art Unit: 2135

LHa

H. S. S.
AU 2135